An Automated System for Complementary Medicine

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The Complementary Care Center (CCC) was formed within the Department of Cardiothoracic Surgery at Columbia-Presbyterian Medical Center (CPMC) in 1995 to research various modalities in alternative medicine and determine their effectiveness in patient care, as well as provide these modalities directly to both in/out patients. Initially, they are exploring the use of hypnosis, relaxation tapes, massage, guided imagery, yoga, accupressure, and therapeutic touch. The CCC's co-founders are Dr. Mehmet Oz and Jery Whitworth.

Shortly after the CCC opened, it became apparent that a new automated system was needed to keep track of a variety of information:

1) Clinical: medical/surgical history; clinical data relevant to specific modalities; progress notes.

2) Scheduling: modality appts.; initial/follow-up interviews; research study activities; surveys/evaluations.

3) Financial/Accounting: patient billing; practitioner payments.

4) Insurance

5) Research Data/Outcomes

6) Surveys/Evaluations

7) Patient Tracking: admit, surgery, discharge dates.

8) Inventory: relaxation tapes; research study tools.

Some of this information was available directly from CPMC's Clinical Information System (CIS) via download, but the bulk of it needed to be collected and updated by the CCC staff. The staff members included:

1) Practitioners: provide modalities to patients.

2) Office support: schedule patients and practitioners; keep track of inventory and patients; manage billing of patients; ensure practitioners are paid.

3) Research study coordinators: track relevant data/outcomes; coordinate studies and ensure that they proceed correctly.

The system needed to be developed within the following constraints:

1) No existing manual procedures: These first needed to be developed to serve as a foundation for the automated system and a backup to it if it ever failed after implementation.

2) Limited funds

3) Phased implementation: As there were no procedures at all, preliminary functionality was needed to assist the staff in keeping the CCC operational. However, in order to minimize wasted effort, whenever possible, these functions served as early phases of an eventual more complete system.

4) Rapid development time: Initial functionality was needed, quickly.

5) Assistance from users with some knowledge of computers, but limited experience in application development

It was decided to develop and implement the system on IBM compatible PC's using Microsoft Access, Visual Basic as needed, and QuickBooks. In addition, laptop computers will eventually be used by the "Point" people, practitioners, and research study coordinators to collect data from the patients.